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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/803,221
Filing Date: March 09, 2001
Appellant(s): FRATTAROLA, ALBERT J.

Alex R. Sluzas
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 07 March 2005.

(1) Real Party in Interest

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A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Damm (US 5,462,395) in view of Ernest (US 3,465,803). Damm discloses a captive screw comprising a ferrule (3) and a screw (2) including a head (4), a shank (8), a thread (10) and a collar (13 also see Fig. 8) formed on the shank proximate the thread. The screw being captive on the ferrule between the head and the collar. Damm does not include a spring. Ernest discloses a captive screw including a spring (50) extending between a head (38) and a ferrule (10) and teaches to provide a spring is known by the disclosure of embodiments both with (Figs. 1-12) and without (Figs. 13-15) a spring. At the time the invention was made, it would have been obvious for one of ordinary skill in the art to provide the captive screw of Damm with a spring between the head a ferrule as disclosed in Ernest because Ernest teaches the it is well known to provide a spring to an otherwise un-sprung captive screw. The spring being operative to retract the screw facilitating installation.

Claim 1 is alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Ernest (US 3,465,803) in view of Damm (US 5,462,395). Ernest discloses a captive screw comprising a ferrule (10); a screw having a head (38), shank (44), threads

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(36) and collar (56); and a spring (50). The screw is captured in the ferrule. Damm discloses a captive screw wherein the collar (13 also see the Fig. 8) is formed on the shank. In view of Damm's disclosure, it would be obvious for one of ordinary skill in the art at the time the invention was made; to have a collar formed on the shank of Ernest. The collar being formed on the shank would facilitate assembly of the screw in the ferrule since the screw collar would simply have to be press fit through the reduced diameter portion of the ferrule. Also, as in Damm the collar would operate as a standoff to engage a surface of a panel to limit penetration.

Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over modified Ernest as applied to claim 1 above, and further in view of Aukzemas. Aukzemas discloses the particulars of the ferrule. Specifically, the ferrule is disclosed as having a knurled outer surface including a groove (32) and annular lip (generally at 30). At the time the invention was made, it would have been obvious for one of ordinary skill in the art to the exterior of the ferrule of Ernest as disclosed in the Aukzemas in order to improve its attachment to the panel. The ring on the ferrule being bent is a produce-by-process limitation wherein it is merely the final product considered for patentability. Barry shows a ring (22).

(10) Response to Argument

In responding to appellant's first argument, that claim 1 is obvious over Damm in view of Ernest the examiner initially would like acknowledge the appellant has done a

fair and accurate job in laying out the issues for the boards consideration. The examiner however does not agree with appellant's conclusion, and maintains that Damm and Ernest are properly combined to teach the features of the claims.

Appellant argues that contrary to Damm, in the present invention the screw shaft passes freely through the ferrule whereas in Damm the shaft only passes "into" the ferrule. In response, the examiner disagrees with appellant's characterization of how the screw shaft is related to the ferrule in Damm. In Damm, the screw shaft is not merely "into" the ferrule but, as seen in Figs., is shown to "pass through the ferrule" as is required of appellant's claim 1. It should be noted that appellant's claim 1 does not include "freely".

Appellant's discussion regarding the compression of the ferrule in support of the shaft being only "into" the ferrule is irrelevant because whether the ferrule is compressed by the head or not, the shaft would still be positioned to "pass through the ferrule" as is required of the claims.

Appellant's next argument contends that it would not have been obvious to provide Damm with a spring as disclosed in Ernest since it would destroy the intent of Damm to have the screw located at intermediate positions. In response, examiner does not disagree with understanding of Damm and is appellant is correct in that the examiner conceded the combination would destroy the ability of screw to be kept at any intermediate position as disclosed in Damm. However, as correctly noted by appellant,

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the examiner fails to find any benefit to having the screw kept in any intermediate position the only benefit being in the fully contracted position to prevent the second part from being harmed by the screw (column 4, lines 2-4). Here appellant argues that Damm's disclosure already has achieved this propose as disclosed at column 3, line 63 - column 4, line 5. In that regard, Damm discloses that "the premounted first part *can be put into the second part in this state*" (column 4, lines 2-3, emphasis added). In other words, there is no prerequisite that the screw is in the completely retracted position thus, leaving open the possibility that the screw is not the completely retraced position thus the second part may still become damaged. The inclusion of a spring as disclosed in Ernest would ensure the screw is completely contracted, as it does in Ernest, which in turn would ensure that the screw could not damage the second piece which would be an improvement over the mere possibility of damage prevention as currently disclosed in Damm.

Appellant points to the repeated disclosure of the screw being capable of being in any intermediate position and to the disclosure where at column 5, lines 57-61 it is disclosed that the free ends of the screw can protrude to mate with the counterthreads much easier. In response, the examiner agrees that the intent of Damm is to have the screw capable of being located at any intermediate position however, the examiner maintains that the skilled artisan would have recognized that the inclusion of a spring to bias the screw to the completely retraced position would, none the less, be improvement since it ensures the second part not be damaged as discussed above. It should be recognized that the inclusion of a spring would not prevent the free end of the

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screw from protruding as alluded to by appellant since, even with the inclusion the spring, the screw could be pushed to protrude to mate with the counterthread in fact, the screw would have to be pushed to protrude otherwise it would not be able to engage the counterthreads.

Appellant also argues that the inclusion of the spring in Damm would reduce the area of friction as well as the area under the head, thus making the device of Damm inoperative or at least reducing its utility. In response, the examiner agrees that the inclusion of the spring would both reduce the friction area as well as the areas under the head however; the examiner disagrees that this would make the device inoperative. The amount of friction area would be moot with the inclusion of the spring since the spring would negate the friction and there would remain sufficient area under the head, specifically between the head and the first part, so as to not make that feature inoperative.

In responding to appellant's second argument that there would be no motivation for the alternative rejection of combining Ernest and Damm, the examiner maintains that there is adequate motivation for the combination.

Appellant argues that the combination would render the device of Ernest non-functional. Applicant incorrectly alleges that the examiner concedes the device of Ernest would be inoperative with the inclusion of the collar as disclosed in Damm by adding a further change. To be clear, the examiner does not consider the device of

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Ernest to be inoperative with the inclusion of the formed collar as disclosed in Damm.

The inclusion of the formed on collar as disclosed in Damm to the device Ernest would not make the device inoperative, it would merely provide a standoff feature which would be desirable for some applications. And, as an example (not a further change) of an application which would benefit from a standoff feature the examiner referenced the elastic collar Damm provided. The inclusion of the collar or any other element between the plates would not make the device of Ernest inoperative. Indeed, the device would continue to be operative as the captive screw of which it is intended.

Appellant further argues that "such a small collar" would not provide an effective standoff. In response, once the collar as disclosed in Damm were combined with Ernest the resultant collar on Ernest would not be small. The collar would be the same size as shown in Damm and would operate in the same efficient manner thus providing an effective standoff. It should also be considered that by this argument the appellant concede that there would a benefit to having a standoff, so long as it is effective.

Appellant argues that there would be no benefit of the standoff (collar) protecting the threads of Ernest as suggested by the examiner since Ernest already has a plastic locking element to perform that function. In response, the examiner agrees that the plastic locking element as disclosed in Ernest would protect the threads however, in the embodiment of Figs 9-11 there is provided no locking element thus in that embodiment the inclusion to a collar would protect the thread and without the additional element.

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In considering appellant's final argument the claims 2-5 are allowable over the combination Damm, Ernest and Aukzemas, the argument adds nothing new; instead relying Damm and Ernest not being properly combined as addressed above. As such, no further response by the examiner is believed necessary.

In conclusion, the rejection of the claims over the combination of Damm and Ernest should be sustained because the claims of the instant invention are simply combining well know features of the prior art to make a device which, even though it may be different, it cannot be considered unobvious.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Flemming Saether



Conferees:

Judy Swann



Heather Shackelford

